SATEXPERT *Meter*

User's Guide

ROVER

WWW.ROVERINSTRUMENTS.COM

GET TO KNOW YOUR SAT EXPERT METER

FRONT PANEL

• POWER

TO TURN ON:

PRESS THE 'HOME' KEY,

TO TURN OFF:

PRESS AND HOLD THE 'HOME' KEY,

• RESET HARDWARE

KEEP THE "HOME" KEY PRESSED FOR 10" AND TURN ON AGAIN.

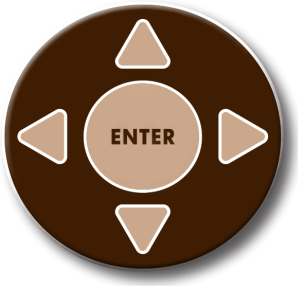
• CONNECTORS

1 = IF/RF INPUT CONNECTOR, "F" TYPE, 75 Ω.

2 = POWER SUPPLY INPUT CONNECTOR (12 V DC - 0,5A),

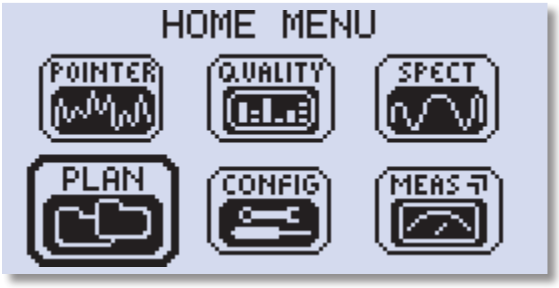
3 = PRESA USB PER AGGIORNAMENTI SW E PIANI DI MEMORIA

• ARROW KEYS

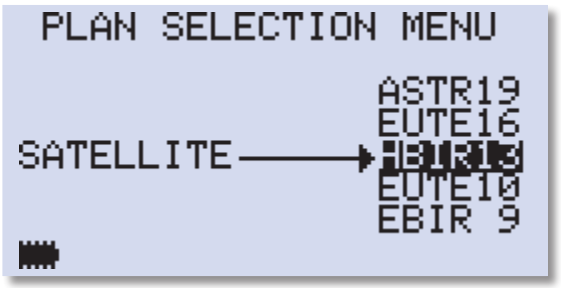


PRESS THE ARROW KEYS TO SELECT A MENU ITEM OR TO CHANGE THE VALUE OF A SELECTED FIELD (NUMBER/MENU ITEM)

PRESS "ENTER" TO CONFIRM.



Press the "HOME" key, use the arrow keys, select PLAN & press "ENTER"



Use the arrow keys & select the desired Satellite (es. HBIR13)

Press the "SAT POINT" key, move the dish to see the wanted Satellite Transponders in to the spectrum

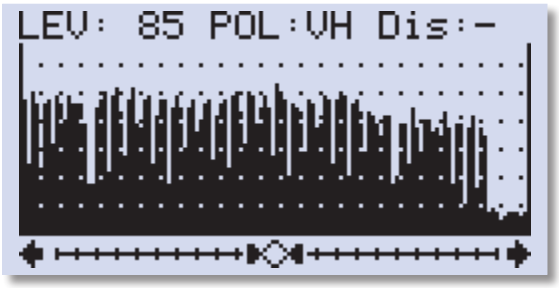
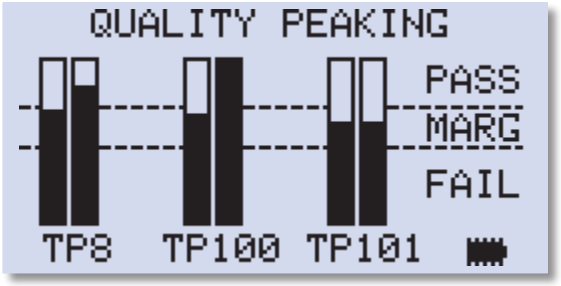


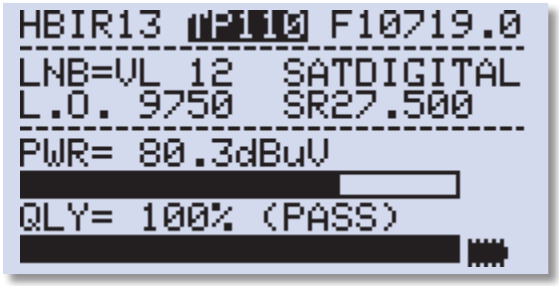
Fig. 1. Satellite NOT FOUND

Fig. 2. Satellite FOUND

NOTE:
When the chosen satellite is found, the buzzer beeps and appear the FOUND indication. (Example HBIR13 Fig. 2)

Press the "QUALITY" keys, optimize the dish pointing & the polarization SKEW to obtain the maximum value of POWER & MARGIN



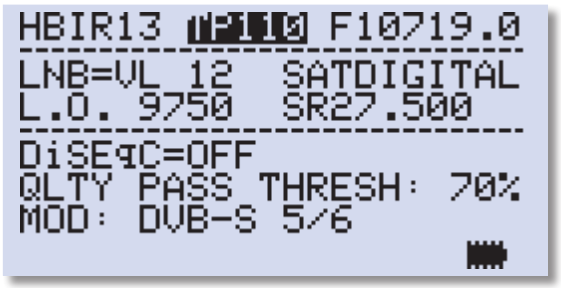


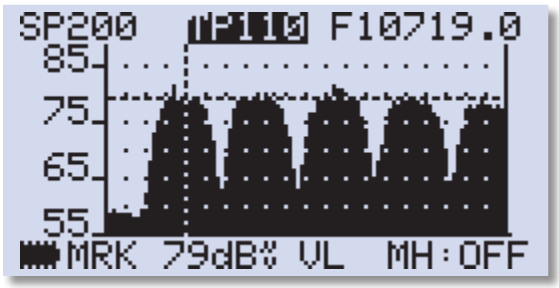
Press the "MEAS" keys to see the measures of POWER (PWR) & QUALITY (QLY).

Use the arrow keys for Select and Modify the values of:

- Trasponder (TP / TS)
- Frequency (F)
- LNB supply (VL-VH-HL-HH-OFF)
- Local oscillator frequency (L.O.)
- Symbol Rate (SR)

Press again "MEAS" keys to see the parameters of modulation & selected Trasponder (TP / TS)

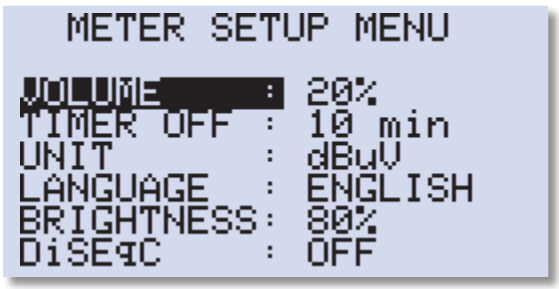




Keep press 2" "SAT POINT" keys to see the SPECTRUM.

Use the arrow keys for Select and Modify the values of:

- Trasponder (TP / TS)
- Frequency (F)
- Reference level
- LNB supply (VL-VH-HL-HH-OFF)
- Max Hold - Max peak memorization (MH)



Keep press 2" "MEAS" keys for access to the CONFIGURATION MENU of the INSTRUMENT (METER SETUP MENU).

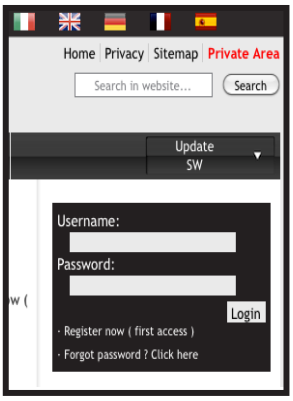
Use the arrow keys for Select and Modify the following parameters:

- Volume
- Auto timer off (TIMER OFF)
- Unit of measure (UNIT)
- LANGUAGE
- BRIGHTNESS
- DiSEqC tone (DiseQc)

- NOTES -

SERVICE AND SUPPORT WEB REGISTRATION AND SOFTWARE UPGRADES

FREE SW UPGRADE and NEWSLETTER SERVICE:



- ROVER offers you the possibility of carrying out **Free Software (SW)** and **Memory Plans (.mem) Upgrades** on your Meters, by simply REGISTERING your data in the **Update SW Area**;
- Once you have registered, you can free download the **ROVER S.M.A.R.T. program**, which is necessary for the installation of SW and/or Memory Plans upgrades;
- ROVER also offers you the possibility to register to our **Newsletter** service, which allows you to receive by email and **free of charge** information regarding: New SW upgrades, Technical Communications, Training Courses, Technical Articles, Product News, Invitations to exhibitions and roadshows and much more besides.

UPDATE SW AREA REGISTRATION:

If you have not already registered, click on the words **"Update SW"** in the menu above, to your right:

- Click on **"Register Now (First Access)"** in the dropdown menu to access the Update SW Area;
- Fill in the electronic form with all **your Personal Information** and the **Username** of your choice;
- After you have completed the form, confirm by pressing the black **"Send"** key at the bottom of the page;
- Once sent, a page will be shown with a summary of your **Registration Data,** where you can modify your data by clicking on the **BLUE "Change Data"** key, print it by clicking on the **BLACK "Print Data"** key or directly access the Update SW Area by clicking on the **RED "Access SW Upgrade Area"** key;
- You will also receive an **e-mail** message, reminding you of your chosen **User Name** and the **Password** assigned by ROVER. Keep it in a safe place for future access to the Update SW Area and so that you can download new SW upgrades and/or Memory Plans;
- If you **loose** your Password assigned by ROVER, click on the function **"Forgot Password? Click here"** in the drop down menu in the **"Update SW"**.

S.M.A.R.T. PROGRAM

The **S.M.A.R.T.** program was created by **ROVER** to enable you to interface your **Meter** with a **PC**. After you have accessed the **Update SW Area**, **download** and **install** the S.M.A.R.T. program on your PC. This program enables you to carry out **SW upgrades** and/or upload **Memory Plans (.mem)**. There are two types of S.M.A.R.T. program: **S.M.A.R.T. PRO** for all ROVER Meters and **S.M.A.R.T. FAST** for PDA models only. The S.M.A.R.T. program has two versions: **Standard and PRO**. The S.M.A.R.T. PRO is initially functional for 30 days free of charge. The S.M.A.R.T. PRO version (if you have not acquired the respective **APP**) automatically expires after 30 days and becomes SMART Standard. To purchase the S.M.A.R.T. PRO APP contact the **ROVER Technical Service Department**.

- The **S.M.A.R.T. Standard** program allows you to continuously **update** your Meter's **SW**;
- The **S.M.A.R.T. PRO** program allows you to **create** mixed SAT-TV-CATV **Memory Plans**, **download Data Loggers** and **manage** your Meter's **Memory**.

SOFTWARE UPGRADES:

Once you have identified and downloaded the correct **ROVER S.M.A.R.T.** program on your **PC** (for more information, read the respective S.M.A.R.T. page in this user guide) install it on your **PC** in order to upgrade your Meter's **Software (SW)**. The proceed as follows:

- In the **Update SW Area** identify the exact **Name/Model** of your Meter and click on the corresponding picture;
- Then click on the corresponding "**SW Upgrade"** file and download it on your PC;
- If you want to see more detailed information about the SW upgrade contents, click on the blue **"i"** icon.

WARNING:

- Before carrying out your Meter's SW upgrades, we suggest you **close all the applications that are active on your PC**: e-mail messages, internet, management programs, etc.
- Also check that the Meter's batteries are charged and that the Meter is connected to the mains. Most importantly do not turn off or disconnect the Meter from the mains during the upgrade. The Meter will automatically turn off once the SW upgrade has been completed.

N.B. If the graphic of your PC bar showing the upgrade advancement blocks, do not interrupt the procedure because the SW download is still taking place even if the PC monitor does not correctly show the advancement in sequence.

PROCEDURE:

1. Connect your Meter to the mains and turn it on;
2. Wait for the Start-Up phase of the Meter to finish correctly;
3. Connect the **USB** cable, **first** to the Meter and **then** to the **PC**;
4. Start up the **ROVER S.M.A.R.T.** program in your PC;
5. In the ROVER S.M.A.R.T. program window, click on **"Instrument"** followed by **"Upgrade Firmware"**;
6. In the **Open** window, select the "**SW Upgrade (.rvr)"** downloaded from the Update SW Area;
7. Click on **"Open"** and confirm the selection;
8. **The SW upgrade procedure will automatically start up;**
9. If this does not happen, the **Upgrade Firmware** window will open, select the exact model of your Meter and click on **"Upgrade"** to carry out the Upgrade manually;
10. Wait a few minutes, the ROVER S.M.A.R.T. program will load the new SW in your Meter;
11. Once the download has been completed, the following message on the PC will appear: **Power on the meter to activate FW **PROGRAM SUCCESFUL****;
12. If the Meter did not automatically turn off, turn it back on again and check, in the Start-Up or Self-Test window (METER INFO - INFO ABOUT), the SW version number.

WARNING:

In the case the update is interrupted or is not successful, check the USB cable connection and repeat the procedure from the beginning.

If the procedure described in this paragraph continues to fail, contact the **ROVER After Sales and Service Department:**

- **Telephone:** +39.030.9198.299;
- **e-mail:** wecare@roverinstruments.com

It is possible to download the **Software Upgrade Procedure** directly from the ROVER website at the following address: **www.roverinstruments.com**.

Please refer to the section **"Technical Support"** area followed by **"SW Upgrade Information"** area.

MEMORY PLAN UPGRADES

MEM PLANS UPGRADES:

Once you have identified and downloaded the correct **ROVER S.M.A.R.T. PRO** program on your **PC** (for more information, read the respective S.M.A.R.T. page in this user guide), install it on your PC in order to load the **Memory Plans** in your Meter. The proceed as follows:

- Once you have accessed the **Update SW Area**, identify the exact **Model/Name** of your Meter and click on the corresponding picture;
- Click on the relative file: "**Plans and Satellites"** and download it on your PC.

WARNINGS:

- Before carrying out your Meter's Memory Plan upgrades, we suggest you **close all the applications that are active on your computer**: e-mail messages, internet, management programs, etc.
- Also check that the Meter's batteries are charged and that the Meter is connected to the mains. Most importantly do not turn off or disconnect the Meter from the mains during the upgrade.

N.B. If the graphic bar showing the upgrade advancement blocks, do not interrupt the procedure because the Memory Plan Upgrade is still taking place even if the PC monitor does not correctly show the advancement in sequence.

PROCEDURE:

1. Connect your Meter to the mains and turn it on;
2. Wait for the Start Up phase of the Meter to finish correctly;
3. Connect the **USB** cable, **first** to the Meter and **then** to the **PC**;
4. Make sure that you have installed the **PRO Version** and start up the **ROVER S.M.A.R.T.** program in your PC;
5. In the ROVER S.M.A.R.T. PRO program window, click on **"Instrument"** followed by **"Connect Instrument";**
6. Click on **"Tools"**, then **"Mem"** e and then **"Open Mem"** In the ROVER S.M.A.R.T. PRO program window**;**
7. In the **Open** window, select the **"Memory Plan (.mem)"** downloaded from the Update SW Area;
8. Click on **"Open"** and confirm the selection;
9. Click on **"Tools",** then **"Mem"** and then **"Write Mem to Instruments";**
10. The following message will appear: **WARNING: This operation will delete all the previous plans stored in the meter;**
11. Click on **"OK"** and confirm to start the upgrade;
12. Wait a few minutes, the ROVER S.M.A.R.T. PRO program will load the new Memory Plans in your Meter;
13. Once the download has been completed, the following message will appear: **Plan Memory download succesfully !.**

WARNING:

In the case the update is interrupted or is not successful, check the USB cable connection and repeat the procedure from the beginning.

If the procedure described in this paragraph continues to fail, contact the **ROVER After Sales and Service Department:**

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BATTERIES

IMPORTANT:

- ALWAYS TURN THE INSTRUMENT OFF BEFORE CONNECTING THE BATTERY CHARGER;
- DO NOT LEAVE THE BATTERIES DISCHARGED FOR LONG PERIODS;
- ALWAYS CHARGE THE BATTERIES AT NIGHT FOR AT LEAST 7 HOURS, EVEN IF THEY ARE NOT COMPLETELY DISCHARGED.

USEFUL INFORMATION:

1. The batteries supplied are high quality and tested individually, the batteries autonomy depending on the following conditions:
   - the LNB power consumption: Single, Dual or Quadruple;
   - the external temperature: with temperatures of less than 10°C, 20% of the capacity is lost;
   - the age of the batteries: a 10% loss in efficiency each year;
   - Remember that the TIMER OFF function, that automatically turns off the Meter after 5 or 10 minutes of inactivity saves up to 30%.
2. The battery indicator has a +/- 20% tolerance (like all battery powered electronic devices) according to the following factors:
   - the battery's charging percentage;
   - external temperature & battery wear and tear status.

BATTERY AUTONOMY:

The battery autonomy of between: 2 hours min. and 4 hours max.

WARNINGS

RECHARGEABLE BATTERY

This device contains a built-in Li-PO (Lithium polimer) battery that can be recharged many times. The battery contains chemicals that might wear with time even if not used. Please dispose of batteries properly.
Do not take the battery pack apart or expose it to extreme temperatures (over 50°C). If the device has been exposed to very low or high temperatures let it rest at room temperature before use.

RECHARGING THE BATTERY

The Battery must be recharged at room temperature (about 20°C) with the device turned off. To avoid premature failure of the battery never leave the device with an empty battery for prolonged periods.

METER MAINTENANCE

CLEANING THE METER

Cleaning the meter from dust and dirt is easy and helps mantaining it in optimal work conditions through the years. The cleaning procedure is simple and quick and requires only minor attention.

Never use chemical aggressive products (diluent) and/or abrasive or rough clothes which may damage plastics and displays.

Always use a soft cloth, damped with a simple water and alcohol solution or a de-greasing not abrasive liquid soap.

Keyboard and display should be gently cleaned. Rubbing the keyboard and/or the display(s) may seriously damage their functions.

MAINTENANCE AND CARE OF THE METER

This meter has been designed to withstand severe conditions of use. Even so, its life may be prolonged by respecting some simple and effective rules:

- The meter has not been designed to withstand high temperatures (over 60°C or 140° F). Those temperatures can be easily reached when the meter is left in a car, especially behind the windshield, or in the trunk. The LCD display and/or other details may easily be damaged by the extreme temperature.
- The internal battery may rapidly loose its efficiency if exposed to high or low temperatures. This will result in reduced autonomy of the meter when powered by internal battery.
- When recharging the internal battery, do allow a good air circulation around the meter and the adapter: do not cover it with clothes and do not recharge the battery when the meter is contained in its transport case
- The meter is not waterproof, even if it is protected against incidental water drops. In case of contact with water, electronic circuits may be damaged, allow the meter to dry thoroughly before trying to turn it on. Do not use hairdryer or other strong heating sources, but just leave the meter in quiet air. If possible, contact Rover Laboratories S.p.A. Technical Assistance.

SERVICE NOTES AND GUARANTEE REGULATIONS

(CEE AND EXTRA CEE)

ROVER Laboratories. S.p.A. has a standard guarante period of 12 months.

This is extended to 24 months for countries within the European Community, and in any case, in accordance with the laws and/or possible regulations applied in your country.

GUARANTEE REGULATIONS:

1. IMPORTANT: the guarantee is valid only upon the presentation of invoice or receipt to ROVER Laboratories S.p.A. The purchase date must be clearly indicated on the invoice/receipt.
2. The guarantee covers the replacement free of charge of parts only, when malfunctioning is solely due to manufacturing faults. The faults must be indentified and defined by ROVER personnel only.
3. The guarantee is void if:
   a. the equipment is tampered with or repaired by non-authorized personnel
   b. damage is found, caused by the incorrect use of the equipment, without following the advice explained in the User's Guide accompanying the equipment.
   c. damage is found caused by the use of the equipment in unsuitable working environments.
4. The following parts are not covered by the guarantee:
   a. Parts subject to wear, such as aesthetic ones, keyboard, plastic chassis, etc.
   b. Batteries.
   c. Bags and carrying cases, including shoulder straps.
5. The equipment can not be replaced and the guarantee is extended after the repair of a fault.

SERVICE NOTES AND PROCEDURES:

6. The equipment can only be repaired by the manufacturer or by an authorized ROVER Laboratories service center:
   a. Before returning the meter for repair, always contact the distributor where you purchased the unit or an authorized service center if present in your area to obtain the return procedure for your analyzer. If no authorised ROVER service centers are available in your area, please contact ROVER Laboratories S.p.A. directly at the following telephone/fax numbers and/or e-mail address:

   - **+39 030 9198 299 Telephone number**
   - **+39 030 990 6894 Fax number**
   - **wecare@roverinstruments.com**

   b. Important: please take note that non-authorised returns for repair to ROVER Laboratories S.p.A. will be rejected.

   c. When returning the meter, always send it with the following documentation attached:
   - *the fully-compiled FAULT IDENTIFICATION FORM*
   - *transport document*
   - *the eventual request for an estimate of repair costs*

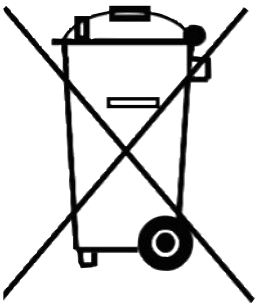
   d. Please note that the request for an estimate of repair costs must be submitted upon return of the analyzer with a written note. If the repair cost estimate is not accepted, ROVER Laboratories reserves the right to charge the customer for the estimate costs analysis.

7. Risks and costs for transport to ROVER Laboratories S.p.A. must be sustained by the buyer. After repair, if the equipment is under guarantee, ROVER Laboratories S.p.A. will pay for the transport returning the goods to the customer. If the instrument is not under guarantee, after repair, the equipment will be returned by courier service with the amount to be paid by the customer shown on the invoice.
8. The guarantee does not cover compensation for direct or indirect damages of any kind to people or goods caused by the use of the equipment and/or compensation caused by the suspension of use due to eventual repairs.
9. ROVER Laboratories. S.p.A. is not responsible for eventual tampering and/or modifications that may cause the goods to no longer adhere to the European “CE” regulations, especially regarding EMC and safety.
10. ROVER Laboratories instruments is recognised and is fully compliant with DVB regulations and specifications (ETS 300 421–12/94) and is consequently marked with the DVB logo.

DISPOSAL OF ELECTRONIC EQUIPMENT

Disposal of electric / electronic equipment (applicable in all CEE countries and whereever separate waste collection system is applied).

This symbol on the packaging indicates that the product should not be considered as domestic waste. The product, at the moment of disposal, should be brought to a waste collection point with the proper facilities to manage electrical/electronic appliances.



Electric/electronical appliances, if not disposed of correctly, may have negative consequences on your health and enivironment.
Furthermore, a proper recycling procedure helps mantaining natural resources.
To have more information about proper disposal of this product, please refer to your local waste management offices or the shop where this product was bought.

FAULT IDENTIFICATION FORM

To: ROVER INSTRUMENTS SERVICE DEPARTMENT
Fax: +39 030 990 6894
E-mail: wecare@roverinstruments.com
Skype: wecare.roverinstruments
Subject: FAULT Identification Form

PLEASE FILL IN ALL AREAS. Date: .....

CUSTOMER INFORMATION.

- Name & Surname: .....
- Company: .....
- Contact name: .....
- Address: .....
- City: ..... ZIP code: .....
- Tel.: ..... Mobile: .....
- Fax: .....
- E-mail: .....
- Skype: .....

METER INFORMATION.

- Meter Model: .....
- Purchase date: ..... Invoice number: .....
- Bought from: .....
- Firmware version (FW): ..... Hardware version (HW): .....
- Serial number (S. NO): .....

NOTE: the information relevant to : model, serial number, firmware/hardware version are available on the initial display after switch on (start up) or on the meter's information display in the configuration menu. In case the meter does not switch on, you may find the meter's serial number on the label placed on the rear of the meter.

FAULT DESCRIPTION.

Using few, but precise, words please describe here below (*) the fault found and forward to our Service Department for more instructions on how to proceed. If necessary provide pictures or loggers & saved screens using the SMART PC interface sortware (available on our website www.roverinstruments.com).

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(*) add lines if more space is needed for your description.

DO NOT RETURN THE METER WITHOUT OUR AUTHORIZATION NUMBER AND ROVER SHIPMENT INSTRUCTIONS OTHERWISE THE METER WILL BE REJECTED UPON ARRIVAL TO ROVER.

TO RECEIVE YOUR AUTHORIZATION NUMBER CALL: +39 030 9198 299

- NOTES -

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6 – S.M.A.R.T. PROGRAM

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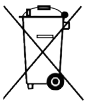
12  DISPOSAL of ELECTRONIC EQUIPMENT

13 – Fault identification form

Assistenza Clienti

wecare@roverinstruments.com

+39 030 9198 299

skype® - solo per chiamate

wecare.roverinstruments

UG-SATEXPERT-EN-V1

Progettato in Europa, Assemblato in Europa

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